

Jefferson County Natural Hazards Mitigation Plan: 2013-2017 5-Year Update

Executive Summary

1. GENERAL OVERVIEW

In an effort to curb rising costs associated with natural disasters, the federal government adopted the Disaster Mitigation Act of 2000 (DMA 2000). It amended the Robert T. Stafford Disaster Relief and Emergency Act, which is the primary law at the federal level dealing with disaster planning, mitigation, response, and recovery.

DMA 2000 reinforced the importance of hazard mitigation planning to proactively devise strategies intended to avoid and reduce the negative effects of natural disasters. If a community wants to apply for grant funding from the Pre-Disaster Mitigation (PDM) Program or the Hazard Mitigation Grant Program (HMGP), it must have an approved hazard mitigation plan. If a disaster strikes a community that does not have an approved plan, it can only receive funding if it agrees to prepare a plan within one year.

Jefferson County and participating municipalities prepared a plan to meet this new requirement in 2008, and in so doing, helped its citizens mitigate the effects of natural disasters. Consistent with federal law, the county is undertaking a comprehensive five-year update of the 2008 plan. Although a plan must meet minimum requirements, this plan is an expression of local needs and priorities.

2. PLAN CONTENTS

The plan consists of six chapters, a map series, and a number of appendices. The first chapter provides an overview of the project. The second chapter reviews background information about Jefferson County including its setting, demographic and economic characteristics, climate, natural resources, land use, and development trends. Chapter 3 presents background information related to special needs populations and groups in the county. Chapter 4 contains a complete inventory of critical facilities in the county. Natural hazards are identified and reviewed in the fifth chapter along with estimated losses to buildings, infrastructure, and critical facilities. In chapter 6, mitigation strategies are reviewed and goals, objectives, and policies are identified that will help to craft appropriate solutions to the identified problems. A range of activities are presented to help foster hazard mitigation efforts. Various funding sources are also reviewed with an eye towards identifying options for funding identified projects. All of the maps in the plan are included in the final section of the plan.

The plan focuses on 12 types of natural hazards:

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| ◆ dam failure | ◆ tornado and high winds | ◆ extreme heat and cold |
| ◆ flooding | ◆ hailstorms | ◆ drought |
| ◆ ice shoves | ◆ thunderstorms | ◆ wildland fire |
| ◆ dense fog | ◆ winter storms | |

As part of the inventory phase, more than 610 critical facilities in the county were identified including:

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|---------------------------------|--|
| ◆ bridges | ◆ fire and police services |
| ◆ dams | ◆ National Guard facilities |
| ◆ public-use airports | ◆ government facilities |
| ◆ telecommunication towers | ◆ schools (public and private) |
| ◆ telephone facilities | ◆ special care facilities-residential |
| ◆ electric facilities | ◆ special care facilities-nonresidential |
| ◆ natural gas facilities | ◆ health care facilities |
| ◆ petroleum pipeline facilities | ◆ vulnerable housing, such as manufactured/mobile home parks and |
| ◆ public water facilities | campgrounds |
| ◆ wastewater facilities | |

3. GOALS, OBJECTIVES, POLICIES, AND ACTIVITIES

The most important part of the plan is Chapter 6, which presents a unified plan of action to mitigate the effects of hazards on property, people, and assets. It lists goals, objectives, and policies that should guide decision-makers and other officials. Goals are intended to describe an end state, usually in general terms. In contrast, objectives describe an end state in measurable and specific terms. Policies give clear direction on what will be done to help achieve a goal and objective.

Following the listing of goals, objectives, and policies, a chart lists specific action items along with estimated implementation costs. Responsible entities are listed for each so that implementation is well defined. The activity charts are a work in progress. As items are completed they should be deleted and as new opportunities or issues arise items will be added. Further, depending on available resources, including funding and staff time, priorities may change.

Activities are prioritized as low, medium, or high. Cost estimates are provided to help formulate funding priorities. When a project is to be undertaken, a more detailed budget should be prepared to assess a project's cost. At that time a benefit cost analysis should be completed to show how the benefits of the project compare to anticipated costs. Federal funding for mitigation activities can only be obtained when benefits clearly outweigh the costs.

Goal 1. Public Education

Provide the public with the education they need to adequately prepare for and respond to natural hazards identified in this plan including dam failure, flooding, ice shoves, fog, tornado/high winds, hailstorms, thunderstorms, winter storms, extreme temperature, drought, and wildland fire. **(2008 Plan)**

Objectives

1. Strengthen emergency service preparedness and response by enhancing public education throughout the county. **(2008 Plan)**
2. Increase the number of households that have prepared a family emergency plan. **(2008 Plan)**
3. Increase the number of public outreach materials in Spanish. **(2008 Plan)**

Policies

1. Work with non-governmental organizations (youth, service, professional, religious) to promote mitigation education and awareness. **(2008 Plan)**
2. Look for multiple and varied opportunities to disseminate educational information to county residents. **(2008 Plan)**

Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
1. Develop, enhance, and implement education programs aimed at mitigating natural hazards and reducing the risk to citizens, public agencies, private property owners, businesses, and schools. (2008 Plan; 2012 status – no action)	\$5,000	Medium	X	X	Jefferson County Emergency Management; American Red Cross
2. Create displays for use at public events (health fair, public awareness day, county fair). (2008 Plan; 2012 status – ongoing effort)	Staff time and supplies	Low	X	X	Jefferson County Emergency Management
3. Establish a single webpage on the county's website to provide up-to-date hazard-related information. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X	X	Jefferson County Emergency Management
4. Work with the schools within the county to promote hazard mitigation education and awareness and discuss ways to better integrate mitigation into the curriculum. (2008 Plan; 2012 status – no action)	Staff time	Medium	X	X	Jefferson County Emergency Management; American Red Cross
5. Identify, improve, and sustain collaborative programs focusing on the real estate and insurance industries, public and private sector organizations, and individuals to avoid activity that increases risk to natural hazards. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; American Red Cross; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
6. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2008 Plan; 2012 status – no action)	Staff time	High	X		Jefferson County Emergency Management; Jefferson County Land Information Office
7. Work to provide more hazard-related information in Spanish. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X		Jefferson County Emergency Management; Jefferson County Literacy Council; United Migrant Opportunity Service; Jefferson County Public Health; Workforce Development

Goal 2. Flooding

Protect the public health, safety, and welfare of county residents and public and private property during flood events. **(2008 Plan)**

Objectives

1. Minimize the impact of flooding on potentially affected structures. **(2008 Plan)**
2. Decrease the number of structures currently located in the 100-year floodplain that are not properly flood-proofed. **(2008 Plan)**
3. Minimize the amount of impervious surface in new development projects to allow more infiltration of stormwater into the ground. **(2008 Plan)**
4. Decrease the number of repetitive loss properties. **(2008 Plan)**
5. Decrease the number of repetitive loss communities in the county. **(2008 Plan)**
6. Increase public awareness of flooding. **(2008 Plan)**
7. Improve communication between the county and local units of government when floods occur or are likely to occur. **(2008 Plan)**

Policies

1. Continue to enforce floodplain regulations to ensure that future development in the 100-year floodplain meets established standards. **(2008 Plan)**
2. Continue the buyout program on Blackhawk Island. **(2008 Plan)**
3. Support the identification and conservation of land with high flood mitigation value (e.g., wetlands, upland storage, and infiltration areas). **(2008 Plan)**
4. Support land acquisition and other management strategies to preserve open space for flood mitigation purposes. **(2008 Plan)**
5. Ensure that governmental officials and employees, county residents, and real estate agents are aware of floodplain regulations. **(2008 Plan)**
6. Ensure that people owning property in the 100-year floodplain, and their agents, notify buyers when selling their property. **(2008 Plan)**
7. Adopt standards to control the proportion of a site that can be covered with impervious surfaces. **(2008 Plan)**
8. Locate public infrastructure outside of the 100-year floodplain. When infrastructure has to be located in the 100-year floodplain, it should be flood proofed or otherwise protected from flood water. **(2008 Plan)**
9. Design and properly size all new stream crossings to not create a significant upstream back-water effect. **(2008 Plan)**
10. Continue to enforce stormwater management regulations. **(2008 Plan)**
11. Use data records in on-going assessment of flood problems and effectiveness of response programs. **(2008 Plan)**
12. Formalize communications links and establish procedures. **(2008 Plan)**
13. Update flood insurance rate maps (FIRMs) when it can be shown that they are substantially inaccurate. **(2008 Plan)**
14. Ensure that all large dams in the county have emergency action plans and that they are up to date. **(2008 Plan)**
15. Undertake such activities as may be required to remain compliant with the requirements of the National Flood Insurance Program. **(2008 Plan)**

Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
1. Identify and analyze feasible mitigation options for repetitive flood properties. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X	X	Jefferson County Emergency Management
2. Apply for funding through the federal Hazard Mitigation Grant program, Flood Mitigation Assistance Program, and the Pre-Disaster Mitigation Program as well as any other resources that may be available to help flood proof repetitive loss sites or remove them through acquisition followed by demolition or relocation. (2008 Plan; 2012 status – in progress)	Staff time	High	X	X	Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, and Watertown; village of Cambridge
3. Design and budget for stormwater management facilities consistent with adopted stormwater management plans that have been or will be prepared / amended. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
4. Develop a computerized database containing information on each culvert and bridge within the county. (2008 Plan; 2012 status – in progress)	Staff time	Medium	X		Jefferson County Emergency Management; American Red Cross

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Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
5. Identify those culverts and bridges that are undersized or are otherwise unable to handle expected flood flows. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
6. Develop a geographic database for public roadways that are susceptible to flooding. (2008 Plan; 2012 status – ongoing)	Staff time	Medium	X		Jefferson County Emergency Management cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
7. Prepare a strategy to prioritize road improvements for public roadways that are susceptible to flooding. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; ; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
8. Identify undeveloped areas of the county, if any, that have flood mitigation value and develop appropriate strategies to protect them. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; ; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
9. Establish a framework to compile and coordinate surface water management plans and data throughout Jefferson County. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
10. Post flood recovery plans and programs to help county residents rebuild and implement mitigation measures to protect against future floods. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X	X	Jefferson County Emergency Management; ; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
11. Distribute National Flood Insurance Program information. (2008 Plan; 2012 status – no action)	Staff time	Medium	X	X	Jefferson County Emergency Management; ; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
12. Explore options for improving the ability of local units of government to report flooding, receive information, and request assistance. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan

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Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
13. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2008 Plan; 2012 status – no action)	Staff time	High	X	X	Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
14. Evaluate the support for and the feasibility of becoming part of the Community Rating System (CRS) to lower flood insurance premiums for property owners. (2008 Plan; 2012 status – ongoing effort)	Staff time	High	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
15. Work with the DNR to ensure that an emergency action plan is prepared for large dams and that they are periodically updated. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management
16. Develop a prioritized list of areas of the county meriting detailed flood studies. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X		Jefferson County Emergency Management
17. Install a surface water gaging station on the Crawfish River near Hubbleton. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management
18. Ensure that privately-owned large dams are inspected consistent with state law. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; Cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
19. Inspect publicly-owned large dams consistent with state law. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
20. Revise existing floodplain regulations to ensure they comply with the most recent (2006) model floodplain regulations developed by the Wisconsin Department of Natural Resources. (2008 Plan; 2012 status – ongoing effort)	Staff time	High	X		Cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan as appropriate
21. Conduct a study to determine feasible and cost effective solutions to minimize flooding in downtown Waterloo (Mauneshia River). (2008 Plan; 2012 status – in progress)	\$8,000 to \$12,000	High	X		City of Waterloo
22. Enhance the 1.6-acre site the City acquired in 2012 for flood storage and restore the stream channel and other related efforts (2012 status – new action item)	Unknown	High	X		City of Waterloo
23. Repair the Mill Road Dam. (2008 Plan; 2012 status – ongoing effort)	Unknown	High	X		Village of Palmyra
24. Mitigation projects as may be identified as a result of the Water Resources Management Study within the Village of Johnson Creek. (2008 Plan; 2012 status – no action)	Variable	Variable	X		Village of Johnson Creek

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Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
25. Enlarge the capacity of the city's (Watertown) stormwater sewer system which may include detention basins (2012 status – new action item)	Unknown	Medium	X	X	City of Watertown
26. Complete a dam failure analysis for the Spring Lake Dam (2012 status – new action item)	Cost included in current budget	High	X		Village of Palmyra

Goal 3. Tornadoes

Lessen the effects of a tornado to the extent feasible and speed recovery following an event. **(2008 Plan)**

Objectives

1. Increase public education and awareness of the potential severity of tornadoes. **(2008 Plan)**
2. Minimize the amount of time that businesses damaged by a tornado are not operational. **(2008 Plan)**
3. Minimize the amount of time it takes to rebuild or restore dwellings damaged by a tornado. **(2008 Plan)**
4. Prevent injuries and death from tornadoes. **(2008 Plan)**

Policies

1. Bury overhead power and utility lines where feasible as a way to reduce power outages during all types of storm events. **(2008 Plan)**
2. Require that mobile homes and manufactured housing are securely anchored in place. **(2008 Plan)**
3. Ensure that adequate tornado shelters are available to county residents especially those living in mobile home parks. **(2008 Plan)**
4. Include redevelopment objectives in smart growth comprehensive plans to support post-disaster development activities. **(2008 Plan)**
5. Continue to support the efforts of severe weather spotters. **(2008 Plan)**
6. Keep the current siren system functioning and in good repair. **(2008 Plan)**
7. Encourage residents to obtain NOAA weather radios especially in those areas of the county that are not covered by a siren. **(2008 Plan)**

Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
1. Periodically assess whether there are enough shelters to house displaced persons. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X	X	Jefferson County Emergency Management; American Red Cross
2. Apply for mitigation funding to purchase NOAA weather radios for county residents. (2008 Plan; 2012 status – no action)	Staff time	Low	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
3. Study the feasibility of and support for adopting a local regulation which would require new mobile home parks and future expansions of existing parks to provide for a tornado shelter. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management
4. Develop and implement strategies for debris management. (2008 Plan; 2012 status – in progress)	Staff time	Medium	X		Jefferson County Emergency Management; American Red Cross; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
5. Amend land development regulations to require a storm shelter in mobile home parks when the number of mobile homes exceeds a threshold as established by the jurisdiction. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Zoning Department; Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
6. Install storm shelters near or in existing mobile home parks and high occupancy campgrounds, such as Bark River Campground & Resort and River Bend. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Mobile home park operators and campground operations with Jefferson County Emergency Management
7. Investigate grant funding for storm shelters. (New 2012)	Staff time	Medium	X		Jefferson County Emergency Management
8. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2008 Plan; 2012 status – no action)	Staff time	High	X		Jefferson County Emergency Management; Jefferson County Land Information Office
9. Update and improve sirens (2012 status – new action item)	Unknown	Medium	X	X	City of Watertown

Goal 4. Extreme Temperature

Protect the health of Jefferson County residents from extreme temperature. **(2008 Plan)**

Objectives

1. Prevent deaths from extreme temperature. **(2008 Plan)**

Policies

1. Encourage volunteers to look after vulnerable individuals, especially the elderly, during times of extreme temperature. **(2008 Plan)**
2. Open county and other public facilities with air conditioning as appropriate for public access during periods of extreme heat. **(2008 Plan)**
3. Ensure that county residents are aware that there are different forms of assistance to help qualified individuals pay their winter heating costs. **(2008 Plan)**

Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
1. Develop a directory of public buildings that would be open to the public during heat waves. (2008 Plan; 2012 status – in progress)	Staff time	Medium	X	X	Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
2. Call a meeting of public and nonprofit organizations that may be able to mobilize a volunteer corps of individuals willing to assist vulnerable people during periods of extreme temperature. (2008 Plan; 2012 status – no action)	Staff time	High	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
3. Investigate the possibility of establishing a database of individuals who are vulnerable to extreme temperature and who have voluntarily placed their name on the call list. (2008 Plan; 2012 status – in progress)	Staff time	Medium	X		Jefferson County Volunteer Organization Acting in Disasters (VOAD); Jefferson County Emergency Management; Jefferson County Public Health
4. Publicise available programs that help residents pay for their utility expenses. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
5. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2008 Plan; 2012 status – no action)	Staff time	High	X		Jefferson County Emergency Management; Jefferson County Land Information Office
6. Amend the county's emergency operations plan to address extreme temperatures. (2008 Plan; 2012 status – ongoing effort)	Staff time	High	X		Jefferson County Emergency Management; American Red Cross; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan

Goal 5. Severe Storms, Hail, & High Winds

Protect and prepare Jefferson County residents from the dangers of extreme weather. **(2008 Plan)**

Objectives

1. Increase public education and awareness of the potential dangers of thunderstorms, snow storms, hail, and windstorms. **(2008 Plan)**

Policies

1. Bury overhead power and utility lines where feasible as a way to reduce power outages during all types of storm events. **(2008 Plan)**
2. Provide citizens with early storm warnings. **(2008 Plan)**
3. Encourage the use of surge protectors on critical electronic equipment in governmental and critical facilities. **(2008 Plan)**
4. Work with utility companies to assess and to improve, when necessary, electric service reliability. **(2008 Plan)**
5. Work with utility companies to ensure that trees are properly trimmed near utility lines. **(2008 Plan)**

Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
1. Continue to update and/or monitor the County's public early warning system and network. (2008 Plan; 2012 status – no action)	Staff time	Medium	X	X	Jefferson County Emergency Management
2. Review local building codes to determine if revisions are needed to improve the structure's ability to withstand greater wind velocities and encourage provision of safe rooms, especially in structures that do not have a basement. (2008 Plan; 2012 status – no action)	Staff time	Low	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
3. Review local building codes to determine if revisions are needed to add requirements for hail-impact resistant roofing and other materials. (2008 Plan; 2012 status – no action)	Staff time	Low	X		Jefferson County Emergency Management
4. Produce and distribute emergency preparedness information related to thunderstorms, snow storms, hailstorms, and windstorm hazards. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X		Jefferson County Emergency Management; American Red Cross
5. Identify and pursue funding opportunities to develop and implement local and county mitigation activities. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X		Jefferson County Emergency Management; American Red Cross; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
6. Install lightning grade surge protection devices for critical electronic components used by government, public service, and public safety facilities, such as warning systems, control systems, communications, and computers. (2008 Plan; 2012 status – ongoing effort)	\$3,000	Medium	X		Jefferson County Emergency Management; American Red Cross; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
7. Provide the public with information about proven lightning safety guidelines to reduce the risk of lightning hazards. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan

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Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
8. Develop and implement strategies for debris management. (2008 Plan; 2012 status – ongoing effort)	Staff time	Medium	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
9. Apply for mitigation funding to purchase NOAA weather radios for county residents. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management
10. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2008 Plan; 2012 status – no action)	Staff time	High	X		Jefferson County Emergency Management; Jefferson County Land Information Office

Goal 6. DroughtProtect the public health, safety, and welfare of Jefferson County residents during periods of drought. **(2008 Plan)****Objectives**

1. Decrease water consumption during periods of drought. **(2008 Plan)**
2. Minimize the economic impacts of drought on the local economy. **(2008 Plan)**

Policies

1. Encourage water conservation during periods of drought. **(2008 Plan)**
2. Impose watering restrictions during periods of extreme drought. **(2008 Plan)**
3. Work with multiple agencies to conserve water, provide drought prediction, and provide stream and groundwater monitoring. **(2008 Plan)**
4. Work with agencies that can assist with and promote soil health, preserve soil moisture and help to minimize the loss of the crops and topsoil in the event of a drought. **(2008 Plan)**
5. Continue to monitor groundwater levels to identify the status of groundwater resources and trends. **(2008 Plan)**
6. Work cooperatively with state agencies and other levels of government in developing appropriate strategies on a regional basis. **(2008 Plan)**
7. Provide water for livestock when the needs of humans have been or are being met. **(2008 Plan)**

Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
1. Create an ordinance to prioritize or control water use during drought conditions. (2008 Plan; 2012 status – no action)	Staff time	Medium	X	X	Municipalities with public water systems
2. Provide public education about the potential severity of drought events. (2008 Plan; 2012 status – no action)	Staff time	Low	X		Jefferson County Emergency Management, cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
3. Develop a set of procedures for water distribution during drought to those in need. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management
4. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2008 Plan; 2012 status – no action)	Staff time	High	X		Jefferson County Emergency Management; Jefferson County Land Information Office

Goal 7. Wildland Fire

Protect structures and residents in Jefferson County from the hazard of uncontrolled wildfire. **(2008 Plan)**

Objectives

1. Decrease the number of wildland fires occurring in the county. **(2008 Plan)**
2. Decrease the number of acres burned from wildland fires. **(2008 Plan)**
3. Increase public education. **(2008 Plan)**

Policies

1. Support the use of controlled burns as a way of reducing the threat of dangerous wildland fires. **(2008 Plan)**
2. Enhance emergency services to increase the efficiency of wildfire response and recovery activities. **(2008 Plan)**
3. Keep track of wildfire events in the county to better document the extent and location of these events. **(2008 Plan)**

Implementation Actions / Strategies	Cost Estimate (2012)	Priority	Schedule		Responsible Entity
			2013 to 2017	2018 to 2022	
1. Apply for federal and state grants to enhance the capability of local fire departments. (2008 Plan; 2012 status – no action)	Staff time	Medium	X	X	Jefferson County Emergency Management; local fire departments
2. Provide education to county and municipality personnel about federal cost-share and grant programs, Fire Protection Agreements, and other related federal programs so the full array of assistance available to local agencies is understood. (2008 Plan; 2012 status – no action)	Staff time	Low	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
3. Study the feasibility of and support for adopting a local burning permit program at the Town level. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; cities of Fort Atkinson, Jefferson, Lake Mills, Waterloo, Watertown, and Whitewater; villages of Cambridge, Johnson Creek, Lac La Belle, Palmyra, and Sullivan
4. Develop a database to keep track of wildfire events in the county. (2008 Plan; 2012 status – no action)	Staff time	Medium	X		Jefferson County Emergency Management; American Red Cross
5. Develop and maintain a geographic database for natural hazard events, including location, weather conditions, and resulting damage. (2008 Plan; 2012 status – no action)	Staff time	High	X		Jefferson County Emergency Management; Jefferson County Land Information Office
6. Investigate the establishment of a uniform way of providing information to the public regarding issuance of burning permits. (2008 Plan; 2012 status – no action)	Staff time	High	X		Jefferson County Sheriff's Department; local fire departments